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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LI, SHI K

ART UNIT	PAPER NUMBER
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2613

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/647,935

Applicant(s)

NORMAN, CHARLES W.

Examiner

Shi K. Li

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-24 and 26-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-24 and 26-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6 December 2007 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 17 rejected under 35 U.S.C. 102(e) as being anticipated by Oberg et al. (U.S. Patent 7,136,583).

Regarding claims 1 and 17, Oberg et al. teaches in FIG. 3 a communication system comprising a first user system 13.S for transmitting first user communication in first wavelength over a WDM working section and over the SDH protecting fiber 37 when the WDM system fails. Oberg et al. teaches in FIG. 3 different fibers for the different wavelengths. In particular,

Oberg et al. teaches in FIG. 3 transponder 15.1 for converting wavelengths and FIG. 3 clearly indicates that the SDH protecting fiber 37 is separated from the WDM working section.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 11, 13, 15, 17, 27, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berthold et al. (U.S. Patent 7,174,096 B2) in view of Koster et al. (U.S. Patent 2004/0001711 A1).

Regarding claims 1 and 17, Berthold et al. discloses in FIG. 4 an optical communication system comprising first POP 12, a second POP 14, first physic path 42, second physical 44, working transceiver 22 and protection transceiver 24. It is understood that each of the transceiver 22 and 24 outputs different wavelengths so that they can share common medium via WDM technique. It is also understood that when problem occur to a working transceiver 22, the signal is switched to the protection transceiver 24. Fiber 42 carries signals generated by transceiver 22 and fiber 44 carries signals generated by transceiver 24. Berthold et al. teaches in col. 4, lines 17 that paths 42 and 44 are diverse communication paths. The difference between Berthold et al. and the claimed invention is that Berthold et al. does not teach coordinating the switch-over from the first wavelength to the second wavelength. Koster et al. teaches in FIG. 1, FIG. 2 and FIG. 3 ring protection, end-to-end protection and segment protection. Koster et al. teaches in paragraph [0063], claims 3 and 4 to use a signaling algorithm to coordinate a switch

over. One of ordinary skill in the art would have been motivated to combine the teaching of Koster et al. with the optical communication system of Berthold et al. because a signaling algorithm speeds up the switching process and provides smooth and systematic switch over. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made use a signaling algorithm to coordinate switch over, as taught by Koster et al., in the optical communication system of Berthold et al. because a signaling algorithm speeds up the switching process and provides smooth and systematic switch over.

Regarding claims 11 and 27, Berthold et al. teaches in FIG. 4 switch 26.

Regarding claims 13 and 29, Berthold et al. teaches in FIG. 4 WDM system 60.

Regarding claims 15 and 31, Berthold et al. teaches in col. 4, line 66 that the network element may be SONET equipment.

6. Claims 2-3, 10, 18-19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berthold et al. and Koster et al. as applied to claims 1, 11, 13, 15, 17, 27, 29 and 31 above, and further in view of Way (U.S. Patent 7,092,642 B2).

Berthold et al. and Koster et al. have been discussed above in regard to claims 1, 11, 13, 15, 17, 27, 29 and 31. Regarding claims 2 and 18, the difference between Berthold et al. and the claimed invention is that Berthold et al. does not teach the first user communication from the first user system over the first optical wavelength. Way teaches in FIG. 1 a WDM system. Way teaches in col. 4, lines 40-45 that the optical signal can be connected to the WDM without the transponder in which case, the signal received from the first user would have the first optical wavelength. One of ordinary skill in the art would have combined the teaching of Way with the modified optical communication system of Berthold et al. and Koster et al. because the

combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to receive user signal at the same wavelength as the working wavelength, as taught by Way, in the modified optical communication system of Berthold et al. and Koster et al. because the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Regarding claims 3 and 19, the transceiver 32 and 34 is capable of generating different wavelengths. It is also expected in the art that the wavelength used by the first user system is the same as that used by the second user system.

Regarding claims 10 and 26, Berthold et al. teaches in col. 2, lines 53-54 that it is understood that bi-directional communication may exist between the network elements. Therefore, either Berthold et al. teaches a second user communications from second user system to first user system with similar architecture as illustrated in FIG. 4, or it would have be obvious to one of ordinary skill in the art to duplicate the architecture of FIG. 4 to provide bi-directional communications based on the suggestion of Berthold et al.

7. Claims 4-5, 7-8, 11, 20-21, 23-24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berthold et al. and Koster et al. as applied to claims 1, 11, 13, 15, 17, 27, 29 and 31 above, and further in view of Öberg et al. (U.S. Patent 6,915,075 B1).

Berthold et al. and Koster et al. have been discussed above in regard to claims 1, 11, 13, 15, 17, 27, 29 and 31. The difference between Berthold et al. and Koster et al. and the claimed invention is that Berthold et al. and Koster et al. do not teach detecting problem at the first POP. Öberg et al. teaches in FIG. 2, FIG. 3 and col. 5, line 54-col. 6, line 67 that problem can occur at

various places such as the transmitter, the transponder and the receiver and includes power detector 27 in the transponder and demultiplexer and signal detector 29 for detecting failure of any wavelength channels. One of ordinary skill in the art would have been motivated to combine the teaching of Öberg et al. with the modified communication system of Berthold et al. and Koster et al. because failure can occur at any place. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to detect failure at the first POP or the second POP, as taught by Öberg et al., in the modified communication system of Berthold et al. and Koster et al. because failure can occur at any place.

8. Claims 6 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berthold et al. and Koster et al. as applied to claims 1, 11, 13, 15, 17, 27, 29 and 31 above, and further in view of de Boer et al. (U.S. Patent 6,917,759 B2).

Berthold et al. and Koster et al. have been discussed above in regard to claims 1, 11, 13, 15, 17, 27, 29 and 31. The difference between Berthold et al. and Koster et al. and the claimed invention is that Berthold et al. and Koster et al. do not teach detecting problem in the optical network. de Boer et al. teaches in FIG. 5 that failure may occur within the optical network and the source network element must be notified of the failure so that path switching can be initiated. One of ordinary skill in the art would have been motivated to combine the teaching of de Boer et al. with the modified communication system of Berthold et al. and Koster et al. because failure can occur at any place. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to detect failure in the optical network and notify the source for path switching, as taught by de Boer et al., in the modified communication system of Berthold et al. and Koster et al. because failure can occur at any place.

9. Claims 14, 16, 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over et al. and Koster et al. as applied to claims 1, 11, 13, 15, 17, 27, 29 and 31 above, and further in view of Fishman (U.S. Patent 6,122,082).

Berthold et al. and Koster et al. have been discussed above in regard to claims 1, 11, 13, 15, 17, 27, 29 and 31. The difference between Berthold et al. and Koster et al. and the claimed invention is that Berthold et al. and Koster et al. do not teach detecting problem at the WDM system. Fishman teaches in FIG. 4, FIG. 5 and FIG. 6 photodetectors 72, 74, 610, and 702 for detecting problems. One of ordinary skill in the art would have been motivated to combine the teaching of Fishman with the modified communication system of Berthold et al. and Koster et al. because failure can occur at any place. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to monitor the WDM system and the SONET equipment, as taught by Fishman, in the modified communication system of Berthold et al. and Koster et al. because failure can occur at any place.

Response to Arguments

10. Applicant's arguments with respect to claims 1-8, 10-24 and 26-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shi K. Li whose telephone number is 571 272-3031. The examiner can normally be reached on Monday-Friday (7:30 a.m. - 4:30 p.m.).


Application/Control Number:
10/647,935
Art Unit: 2613

Page 8

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

skl
11 February 2008


Shi K. Li
Patent Examiner